

cost-effectiveness ratio (ICER). Other costs included in the model were obtained by the declared public budget of those Hospitals. **RESULTS:** The annual total therapy cost for etanercept, adalimumab and infliximab per patient was \$141,050, \$158,938 and \$163,152 Mexican pesos, respectively. The ACR 70 rates responses of etanercept, adalimumab and infliximab, indicated in clinical trials are 43%, 21% and 10% respectively. The ICER per additional patient achieving ACR 70 response of etanercept when compared with adalimumab was -\$81,309, and -\$66,976 when compared with infliximab etanercept was a dominant alternative compared with adalimumab and infliximab. **CONCLUSIONS:** According to published results, the use of etanercept in patients with RA is the most cost-saving alternative. If the use of etanercept is increased, more patients could have access to biologic therapy and the health care institutions in Mexico could contain costs in the treatment of RA.

PMS6

ESTIMATED CLINICAL & ECONOMIC IMPACT OF POOR PATIENT PERSISTENCE WITH OSTEOPOROSIS MEDICATIONS IN BRASIL

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OBJECTIVES: Persistence with osteoporosis medications is a significant clinical issue, with many patients discontinuing therapy after just one year. The purpose of this study was to estimate the lifetime clinical and economic impact of poor persistence among patients with osteoporosis in Brazil. **METHODS:** We used modeling techniques and data from secondary sources to quantify the impact on risks, costs, and consequences of hip fracture resulting from poor persistence with osteoporosis medications. All patients entering the model were assumed to be 65-year-old postmenopausal women, recently diagnosed with osteoporosis, and newly initiated on bisphosphonate therapy. The model calculates the risk of hip fracture as well as fracture-attributable life-years lost and health care costs (acute and follow-up). To estimate the impact of poor treatment persistence on these measures, we contrasted model results for a scenario assuming perfect compliance with therapy over each patient's remaining years of life to another assuming all patients would discontinue therapy after one year. Analyses were performed for all patients and for a subgroup with more severe disease (t-score <-2.5). All costs were expressed in 2006 Brazilian Reais (R\$) and discounted at 5% per annum. **RESULTS:** We estimate that Brazilian patients who discontinue osteoporosis therapy after one year would experience 27.0 additional fractures per 100 patients, lose an average of nearly one year of life (0.968 fracture-attributable life years), and incur an average of R\$3611 in additional costs of fracture-related care compared with perfectly compliant patients. Corresponding numbers for the subgroup of patients with severe osteoporosis are 35.5 additional fractures (per 100), 1.31 fracture-attributable life-years lost, and R\$5,603 in fracture-related health care costs. **CONCLUSIONS:** The lifetime clinical and economic consequences of poor persistence among osteoporosis patients in Brazil may be considerable. Programs to improve persistence with osteoporosis medications have the potential to benefit patients and payers alike.

PMS7

COST-EFFECTIVENESS OF COLLAGEN-POLYVINYLPIRROLIDONE IN THE TREATMENT OF STABLE NONUNION TIBIAL FRACTURES

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OBJECTIVES: Traumatic fractures of the lower extremities often require prolonged rehabilitation or multiple procedures to achieve maximum functional recovery and, therefore, they are an area of substantial socioeconomic cost. Tibia fractures are the most common long bone fracture. Although only a relatively small percentage of the total of fractures—between 2% and 7%—are nonunion fractures, most of them (62%) affect the tibia. The aim of this analysis is to assess the cost-effectiveness of collagen-polyvinylpyrrolidone versus surgical treatment with intra-medullary nailing in the management of nonunion tibia fractures, from the health care payer's perspective. **METHODS:** A cost-effectiveness analysis was developed using a decision-tree model that simulates costs and effectiveness for a 12-month period. The effectiveness measure was the percentage of patients who shows radiographic fracture union at the end of the period of analysis. The comparators were collagen-polyvinylpyrrolidone versus surgical treatment with intramedullary nailing. Resource use and cost data were obtained from hospital records of patients being treated at a third-level hospital within the Mexican Social Security Institute (IMSS) and price lists and rates published by health institutions. Effectiveness data were obtained from international published literature. Sensitivity analyses were performed to determine the results robustness. **RESULTS:** The expected costs of treatment for the alternatives were: US\$2,467.3 for collagen-polyvinylpyrrolidone versus USD\$7,920.6. Tibial fracture consolidation was present in 95.7% of the patients treated with intramedullary nailing and in 99.6% of the patients treated with collagen-polyvinylpyrrolidone. Incremental analysis shows collagen-polyvinylpyrrolidone as dominant alternative. **CONCLUSIONS:** Collagen-polyvinylpyrrolidone is more effective and less expensive than intramedullary nailing for the management of patients with stable nonunion tibia fractures.

ECONOMIC EVALUATION OF THE USE OF Hylan G-F 20 IN THE HANDLING OF SEVERE KNEE OSTEOARTHRITIS

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OBJECTIVES: Knee osteoarthritis is a multifactorial, progressive and incurable rheumatic ailment; most treatments look for a maximum recovery of mobility and functionality of the knee joint, with a minimum risk possibility. Due to its high cost and invasive character, gonarthrosis surgical treatment is reserved, according to the clinical practice guidance available in Mexico, for severe pain and joint functionality limitation cases; defined as knee osteoarthritis present in IV degree, or functional class III onwards. This study evaluates cost and effectiveness of the use of Hylan G-F 20 vs. intraarticular steroids to withhold surgery in patients with severe knee osteoarthritis. **METHODS:** Cost-effectiveness analysis using a decision tree to simulate a hypothetical cohort behavior of patients with severe knee osteoarthritis for a period of two years, from the perspective of the health service supplier. Costs were estimated using prices of 2008 and are expressed in US dollars (exchange rate of 11.14 pesos/1 US dollar). **RESULTS:** With Hylan G-F 20, 94.6 % of patients did not require surgery during the analysis period vs. 50%, in the case of those under intraarticular steroid treatment. Expected treatment costs: Hylan G-F 20, \$2081.0, and intraarticular steroids, \$4593.2. The average cost-effectiveness of treatments: Hylan G-F 20, \$2200.5 and intraarticular steroids, \$9111.6. Incremental analysis shows Hylan G-F 20 as dominant alternative. Different sensitivity analyses corroborate the dominance relationship exercised by Hylan G-F 20 over the steroid treatment. **CONCLUSIONS:** Hylan G-F 20 is a more effective and less expensive alternative than steroid treatment to withhold surgery in patients with severe knee osteoarthritis.

PMS13

ESTUDIO FARMACOECONÓMICO DE LOS TRATAMIENTOS ACIDO ZOLEDRÓNICO, RISEDRONATO, ALENDRONATO E IBANDRONATO EN EL MANEJO DE LA OSTEOPOROSIS EN MUJERES POSMENOPÁUSICAS EN VENEZUELA.

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OBJETIVO: Análisis costo-efectividad de los tratamientos, Ácido Zoledrónico, Risedronato, Alendronato e Ibandronato, en el manejo de la osteoporosis en posmenopáusicas. Impacto de la adherencia a los tratamientos anuales y semanales para la osteoporosis, en términos de: número de fracturas de cadera, costos asociados a las fracturas de cadera y días de hospitalización. **MÉTODOS:** Retrospectivo, analítico. Información de efectividad a partir de ensayos clínicos, lo que representa un Nivel de evidencia I, grado de recomendación A. Los costos de medicamentos a precio de mercado y los costos hospitalarios a partir de una muestra representativa de centros de salud de complejidad mediana y alta en Venezuela. **RESULTADOS:** La relación costo-efectividad (costo-por incremento de 1% de la densidad mineral ósea) fue en el caso de cadera, para Ácido Zoledrónico US\$ 13,178, Alendronato US\$ 15,521 e Ibandronato US\$ 20,625. El costo de una fractura de cadera se estimó en US\$ 34.884 (hospitalización, cirugía, cuidados, prótesis, andadera, exámenes). De acuerdo a la población femenina venezolana, la prevalencia de padecer osteoporosis, los riesgos de fractura asociados a la adherencia a los tratamientos y los costos, se estimó que el costo social de las fracturas de cadera estaría para el tratamiento semanal en US\$ 1.015.984, para el anual en US\$ 1.015-984 y sin tratamiento US\$ 1.344.403. Los días de hospitalización se estimaron en: tratamiento semanal 116.500 días, anual 85.800 días y sin tratamiento en 154.158 días. **CONCLUSIONES:** Los tratamientos anuales para el manejo de la osteoporosis, debido a sus costos, efectividad y mayores niveles de adherencia representan una opción eficiente en el manejo de la osteoporosis. La mayor adherencia a los tratamientos permite reducir el número de fracturas y consumo de recursos sanitarios, permitiendo una contención de costos y una minimización de los costos de oportunidad al posibilitar un uso más eficiente de los recursos.

PMS9

COST-MINIMIZATION ANALYSIS OF VISCOSUPPLEMENTATION TREATMENT OSTEOARTHRITIS OF KNEE IN BRAZIL'S PRIVATE SECTOR

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OBJECTIVES: To analyse the cost-minimization of viscosupplementation in comparison with arthroscopy/lavage for the treatment of moderate osteoarthritis of knee. **METHODS:** A cost-minimization analysis from the Brazilian Private Payer perspective, with a time horizon of 2 years was conducted. A decision tree considering the probabilities of treatment fail or success, were performed. Study comparators examined were Hyaluronic Acid (Synvisc®) and Arthroscopy with Lavage (Arthroscopy). The clinical aspects regarding benefits and probabilities data were extracted from clinical trials and meta-analysis of clinical trials for the alternatives. The analysis was based on Brazilian current clinical practice. Treatment costs were collected from a private payer's database. Costs and benefits were validated by a panel of Brazilian specialists from payers. Due to short term analysis discounting was not applied, the results were converted in US Dollars (R\$2.3/USD 1.00). A one-way sensitivity analysis was performed. **RESULTS:** Patients using Hyaluronic Acid get the lowest total cost per treatment (Synvisc® = USD 2,042 OR R\$4.697; Arthroscopy = USD 2136 OR R\$4.913). The results were sensitive to Hyaluronic Acid cost regarding all other